

Claims:

1 1. A material for the diagnosis of tumors, containing a substance, with
2 which
3 - conductine, its mutants and variations or parts thereof or
4 - genes, which code for conductine, its mutants and variations or parts thereof, or
5 - m-RNA sequences, which are read by these genes,
6 are detected.

1 2. The material for the diagnosis of tumors of claim 1, containing
2 specific antibodies to conductine, its variations or mutants or parts thereof.

1 3. The material for the diagnosis of tumors of claims 1 and 2, wherein
2 the specific antibodies are monoclonal antibodies.

1 4. The material for the diagnosis of tumors of claim 1, containing
2 corresponding oligonucleotide primers and/or DNA probes for the detection of the
3 genes and their mutations.

1 5. The material for the diagnosis of tumors of claim 1, containing
2 corresponding oligonucleotide primers and/or DNA probes for the detection of RNA
3 sequences.

1 6. A material for the treatment of tumors containing a substance,
2 which activates/reactivates the action of conductine in the body.

1 7. The material of claim 6, containing a substance, which activates
2 the gene promoter of conductine.

1 8. The material of claim 6, containing a substance, which increases
2 the stability of mRNA sequences.

1 9. The material of claim 6, containing a substance, which increases
2 the activity of conductine.

1 10. Conductine, its variations, its mutants as well as parts thereof.

1 11. The conductine of claim 10, characterized by the amino acid
2 sequence 1 to 840 of Figure 1 (SEQ ID No. 1), Figure 1 being part of this claim.

1 12. The partial sequence of conductine of claim 10, characterized by
2 the amino acid sequence 78 to 200 (RGS domains) of Figure 1 (SEQ ID No. 2).

1 13. The partial sequence of conductine of claim 10, characterized by
2 the amino acid sequence 343 to 396 (GSK 3b) of Figure 1 (SEQ ID No. 3).

1 14. The partial sequence of conductine of claim 10, characterized by
2 the amino acid sequence 397 to 465 (b-catenine binding domains) of Figure 1 (SEQ
3 ID No. 4).

1 15. The partial sequence of conductine of claim 10, characterized by
2 the amino acid sequence 783 to 833 (disheveled homology region) of Figure 1 (SEQ
3 ID No. 5).

1 16. The partial sequence of Adenomatosis Poliposis Coli (APC),
2 characterized by the amino acid sequences 1464 to 1604, 1516 to 1595, 1690 to
3 1778 and 1995 to 2083 as the interaction sites of RGS domains.

1 17. A cDNA sequence of conductine, its variations or mutants or
2 parts thereof.

1 18. The cDNA sequence of the conductine of the nucleotide sequence
2 1 to 2825 of Figure 2 (SEQ ID No. 6), Figure 2 being a component of this claim.

1 19. The cDNA partial sequence of the conductine of the nucleotide
2 sequence 446 to 814 (RGS gene section) of Figure 2 (SEQ ID No. 7).

1 20. The cDNA partial sequence of the conductine of the nucleotide
2 sequence 1241 to 1402 (gene section of the GSK 3b-binding domains) of Figure 2
3 (SEQ No. 8).

1 21. The cDNA partial sequence of the conductine of the nucleotide
2 sequence 1403 to 1609 (gene section of the b-catenine binding domains) of Figure 2
3 (SEQ ID No. 9).

1 22. The cDNA partial sequence of the conductine of the nucleotide
2 sequence 2561 to 2713 (gene section of the disheveled homology region) of Figure 2
3 (SEQ ID No. 10).

1 23. Use of the conductine gene for the gene therapy of tumor
2 diseases, wherein a vector is constructed with the conductine gene, a gene transfer

- 1 subsequently takes place in the human body and, with that, the activity of the
- 2 conductine in the cells of the body is restored.

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